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before the

Subcommittee on Fisheries Conservation, Wildlife and Oceans and the Subcommittee on Forests and Forest Health

on H.R. 2416, the Paleontological Resources Preservation Act

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I'd like to thank you for the opportunity to testify in favor of H.R. 2416, the Paleontological Resources Preservation Act. I am an amateur paleontologist, and have seen firsthand how the increased public interest in paleontology has motivated many Americans to make an avocation of the fascinating field of study.

One of the most gratifying things for me has been the opportunity to collaborate with professional scientists - to learn from them, and to make my own small contribution to the advancement of scientific knowledge. I have had the pleasure in participating in fieldwork with the Dinamation International Society, the Universidad Autonoma de México, the Shuler Museum of Paleontology at Southern Methodist University, and the Ft. Worth Museum of Nature and History. I have been an active member of the Society of Vertebrate Paleontology, including serving as a member of its Government Affairs Committee since 1996 and as Affiliated Societies Liaison from 1997-2002. By having amateurs like me serve in significant positions, the SVP has ensured that it reflects the interests of both professional and amateur paleontologists.

H.R. 2416 puts no new restrictions on amateur paleontologists like me. We can continue to collect for personal use common plant and invertebrate fossils on multi-use lands without a permit. And our colleagues who are amateur rock and mineral collectors will benefit from the provisions of Section 14, which recognizes that casual collecting of rocks and minerals for personal use is a valid use of National Forest System lands. H.R. 2416 impacts neither private lands nor existing private collections. The PRPA has been endorsed by both the Western Interior Paleontological Society, an organization of over 300 amateur paleontologists, and by the Dry Dredgers, a Cincinnati area amateur group.

Because of my personal interest in paleontology, and the nexus between paleontology and public policy I have studied the problems of illegal collection and theft of fossils from federal lands for the past several years. I'd like to share with you a couple case histories that illustrate what is happening to this valuable public resource. I'm going to begin with the story of three Allosaurus specimens. Allosaurus was a large carnivorous dinosaur of the Jurassic period (fig. 1).

In 1991, the BLM discovered an illegal commercial collection taking place on federal land. The BLM contacted the Museum of the Rockies at Montana State University – Bozeman and asked them to collect the specimen and hold it in the public trust. As a result of this, the most complete Allosaurus ever found, which this commercial collector intended to sell to a private collector overseas, now has been saved for all the people of the United States. As a result of careful analysis of injuries sustained by this dinosaur and preserved in the bones, this particular specimen has yielded a treasure trove of information about how Allosaurus lived. The commercial collector, who had attempted to steal this fossil and the information it tells us, was never prosecuted.

Unfortunately, the American people were much less fortunate in the case of another Allosaurus find. This Allosaurus was illegally collected from BLM land near Fremont Junction, Utah. The collector was not prosecuted because the lapse of the statute of limitations. Last year the commercial fossil dealer, who purchased the Allosaurus for $90,000 and sold it to a Japanese collector for $400,000, plead guilty to receipt of stolen property and was sentenced to 1 year probation. His company was fined $50,000. A profit of $260,000 is not a deterrent. We simply must have stronger penalties and have specific laws protecting

fossils on federal lands in order to deter this type of illegal activity.

The Fruita Paleontological Area near Grand Junction, Colorado became the first management area specially protected by the Bureau of Land Management solely because of fossils in 1976. Specimens from this area include Allosaurus, Apatosaurus, Camarasaurus, Ceratosaurus, Dryosaurus, and Stegosaurus. It has also yielded numerous microvertebrate and invertebrate remains and has facilitated reconstruction of the ecological community in which these animals lived. During a trip to the Fruita Paleontological Area I was able to learn much about the important research being done there. Unfortunately, I also witnessed the damage that is occurring there because of theft and vandalism.

Figure 2 shows the remains of what was once a largely intact allosaur vertebrae. The entire portion of the vertebrae that was protruding from the surrounding matrix has been sheared off.

Figure 3 shows what was probably once a major portion of an allosaur skeleton. We will never know what scientific information this specimen would have yielded.

In Figure 4 we see the imprint showing where a Diplodocus femur was stolen from Dinosaur Hill, a quarry just a short distance from the FPA.

The paleontological community is strongly in favor of laws protecting fossils on public lands, and of prohibiting their collection for commercial use. Several years ago, the Society of Vertebrate Paleontology (SVP) added a Statement of Ethics to its bylaws to help the society and its members handle ethical issues such as those raised by increasing commercialization. I summarized the SVP Ethics Statement and a subsequent Joint Position Statement by the Paleontological Society as follows: "The SVP Ethics Statement contains several principles that are particularly noteworthy for their public policy implications. It begins by recognizing that vertebrate fossils are usually unique or rare, and that they are part of our natural heritage. The Ethics Statement assigns to vertebrate paleontologists the responsibility of ensuring that pertinent detailed contextual data are recorded when vertebrate fossils are collected and notes that collection and preparation should be done by properly trained personnel. The importance of proper curation and the assurance of access for future researchers are recognized by the Ethics Statements' provision that scientifically significant vertebrate specimens should be curated and accessioned in institutions charged in perpetuity with conserving fossil vertebrates for scientific study and education. The Ethics Statement further recognizes the responsibility of paleontologists to expeditiously disseminate information to other paleontologists and to the general public. Perhaps the most important part of the SVP Ethics Statement from a public policy perspective is the conclusion that "The barter, sale, or purchase of scientifically significant vertebrate fossils is not condoned unless it brings them into, or keeps them within, a public trust" (SVP, 1994).

In order to ensure that the SVP's public policy recommendations and initiatives regarding fossils on federal lands were also reflective of the wider paleontological community, the SVP initiated a dialogue with the Paleontological Society. Together these two scientific societies include several thousand individuals, representing more than 90% of professional paleontologists and a very large proportion of amateur paleontologists. This dialogue culminated in 1999 when the two societies issued the joint position statement Paleontological Resources on U.S. Public Lands. The PS-SVP joint statement advocates public policy which, like the SVP Ethics Statement, recognizes that fossils are part of our scientific and natural heritage. It goes on to find that fossils on public lands belong to all the people of the United States and that, as such, they need special protection, and should not be collected for commercial purposes. The joint statement concludes that the two societies strongly support actions which "protect fossils on public lands as finite natural resources; encourage responsible stewardship of fossils for educational, recreational, and scientific purposes; promote legitimate access to, and responsible enjoyment of, paleontological resources on public lands by the public and amateur paleontologists for personal use, and by the professional paleontological community, including professional paleontologists from outside the U.S.; and bring fossils from public lands into public institutions where they are available for purposes of education and scientific research" (PS and SVP, 1999)." (Summary from Vlamis, 2001) The Society of Vertebrate Paleontology has endorsed The Paleontological Resources Preservation Act.

Similarly the American people support the type of stewardship of fossils on federal lands which is embodied in H.R. 2416. MKTG, INC., a market research firm that has conducted over 10,000 studies since its founding in 1979, conducted a survey of American public opinion regarding fossils. This survey of 300 American adults analyzed public responses both to a hypothetical situation involving the discovery of a fossil, and to a series of more general questions pertaining to fossils. A random calling program was utilized which gave

every telephone in the US the same probability of being called. The survey results have an accuracy rate of +/- 7%. The findings of this survey are detailed in Vlamis (2001).

Several key points that demonstrate public support for the principles embodied in H.R. 2416. When the hypothetical find is assumed to have been made on public land 86.6 percent agree with the statement that "The fossil is part of our heritage, it belongs to everyone in the United States", 80.0 percent with the statement that "There should be a law against my selling the fossil", 81.0 percent with the statement that "There should be a law against my taking the fossil out of the United States", and 81.0 percent disagree with the statement that "The fossil is mine, finders keepers". The consistency of responses when asked in a variety of different ways is striking.

In the second part of the survey, 85.3 percent agreed with the statement that that "Fossils of animals with backbones are part of our national heritage and should be protected in much the same way that archeological remains (human artifacts) are now protected"; and, 88.0 percent agreed that "If laws are created to restrict the collection of fossils on public lands, the only people who should be allowed to collect them are people with appropriate skills for doing so and with a permit for that purpose. All the fossils that they find should go into museums and universities prepared to protect them" (Vlamis, 2001). The American people want our natural heritage preserved as a national treasure.

The amateur and professional paleontological communities and the general public need the information from fossils found on federal lands and they want these fossils to be protected from theft and vandalism.

References:

paleontological society and Society of Vertebrate Paleontology. 1999. Joint Position Statement by The Paleontological Society and The Society of Vertebrate Paleontology on Paleontological Resources on U.S. Public Lands

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Appendix 1

Society of Vertebrate Paleontology By-Law on Ethics

Article 9. Statement of Ethics.

Several goals for the Society of Vertebrate Paleontology follow from its mission statement (Constitution Article 1): to discover, conserve, and protect vertebrate fossils and to foster the scientific, educational, and personal appreciation and understanding of them by amateur, student and professional paleontologists, as well as the general public. Fossil vertebrates are usually unique or rare, nonrenewable scientific and educational resources that, along with their accompanying contextual data, constitute part of our natural heritage. They provide data by which the history of vertebrate life on earth may be reconstructed and are one of the primary means of studying evolutionary patterns and processes a s well as environmental change.

It is the responsibility of vertebrate paleontologists to strive to ensure that vertebrate fossils are collected in a professional manner, which includes the detailed recording of pertinent contextual data (e.g. geographic, stratigraphic, sedimentologic, taphonomic).

It is the responsibility of vertebrate paleontologists to assist government agencies in the development of management policies and regulations pertinent to the collection of vertebrate fossils, and to comply with those policies and regulations during and after collection. Necessary permits on all lands administered by federal, state, and local governments, whether domestic or foreign, must be obtained from the appropriate agency(i es) before fossil vertebrates are collected. Collecting fossils on private lands must only be done with the landowner's consent.

Fossil vertebrate specimens should be prepared by, or under the supervision of, trained personnel.

Scientifically significant fossil vertebrate specimens, along with ancillary data, should be curated and

accessioned in the collections of repositories charged in perpetuity with conserving fossil vertebrates for scientific study and education (e.g. accredited museums, universities, colleges, and other educational institutions).

Information about vertebrate fossils and their accompanying data should be disseminated expeditiously to both scientific community and interested general public.

The barter, sale, or purchase of scientifically significant vertebrate fossils is not condoned unless it brings them into, or keeps them within, a public trust. Any other trade or commerce in scientifically significant vertebrate fossils is inconsistent with the foregoing, in that it deprives both the public and professionals of important specimens, which are part of our natural heritage.

Appendix 2

Joint Position Statement

by The Paleontological Society and The Society of Vertebrate Paleontology

on Paleontological Resources on U.S. Public Lands

The Paleontological Society and The Society of Vertebrate Paleontology are committed to increasing scientific knowledge, educational benefits, and appreciation of the natural world based on fossils - for everyone - child or adult, the general public, or amateur or professional paleontologists. Fossils are an invaluable part of our scientific and natural heritage. They yield detailed information about the history of life and of our planet, and provide lessons for the modern world and our future.

Many important fossil localities occur on U.S. public lands and belong to all people of the United States, including future generations. The Society of Vertebrate Paleontology and The Paleontological Society therefore support the development of policies and practices that can be used by different federal agencies to regulate the collection of fossils on U.S. public lands in an appropriate, clear and consistent manner.

Many fossils are common (for example, many non-vertebrate fossils) and should be allowed to be collected – in a responsible way - by any amateur or professional paleontologist, thus allowing them to experience and benefit from the excitement of discovery, recovery, identification and study. In particular, because of the benefits that derive from increased public appreciation of fossils, it is important that the participation of amateurs in paleontology is not discouraged by Federal policies and practices.

Other fossils are rare (for example, many vertebrate fossils and some non-vertebrate fossils), and require special protection, especially from destruction by vandalism or commercial exploitation. In particular, because of the dangers of overexploitation and the potential loss of irreplaceable scientific information, commercial collecting of fossil vertebrates on public lands should be prohibited, as in current regulations and policies. The commercial collecting of other paleontological resources on U.S. public lands should be strictly regulated by permit through the appropriate land management agencies. Regulations and polices regarding the collection of paleontological resources from U.S. public lands should be strictly enforced.

In this context, the Council of The Paleontological Society and the Executive Committee of The Society of Vertebrate Paleontology strongly support actions that:

i) protect fossils on public lands as finite natural resources,

ii) encourage responsible stewardship of fossils for educational, recreational, and scientific purposes,

iii) promote legitimate access to, and responsible enjoyment of, paleontological resources on public lands by the public and amateur paleontologists for personal use, and by the professional paleontological community, including professional paleontologists from outside the U.S.; and

bring fossils from public lands into public institutions where they are available for purposes of education and scientific research.

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TJV Figure 2. Shows the remains of what was once a largely intact allosaur vertebrae. The entire portion of the vertebrae that was protruding from the surrounding matrix has been sheared off.

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